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(FILE 'HOME' ENTERED AT 14:05:33 ON 18 JUN 2002)

FILE 'CAPLUS' ENTERED AT 14:05:50 ON 18 JUN 2002

L1	638587 S	CYSTEINE OR METHIONINE OR AMINO ACID# OR HOMOCYSTEINE
L2	327555 S	SULFID? OR PYRIT? OR MARCASIT? OR CHALCOPYRIT? OR BORNIT? OR
L3	819636 S	LEACH? OR DISSOL? OR EXTRACT?
L4	228 S	L1 AND L2 AND L3
L5	147946 S	CYSTEINE OR METHIONINE OR HOMOCYSTEINE
L6	132 S	L5 AND L4

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# WEST Search History

DATE: Tuesday, June 18, 2002

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>			
L21	l4 and l5 and l17 and L20	42	L21
L20	l1 or l19	876	L20
L19	t adj ferrooxidans or t adj thiooxidans	113	L19
L18	ore same l17 same l5	13	L18
L17	l8 or l14	179822	L17
L16	l14 same l7 same l5	6	L16
L15	((423/\$)!.CCLS.) and L14	1	L15
L14	homocysteine	1880	L14
L13	l10 and L12	1	L13
L12	((435/262 )!.CCLS. )	685	L12
L11	((423/\$)!.CCLS.) and L10	15	L11
L10	l8 same l7 same l5	339	L10
L9	l8 same l7 same l4	1648	L9
L8	l2 or amino adj acid	179494	L8
L7	l4 or pyrite or marcasite or chalcopyrite or bornite or covelline	111098	L7
L6	l2 same l4 same L5	83	L6
L5	leach\$4 or dissol\$5 or extract\$4	1390962	L5
L4	sulfid\$3	107454	L4
L3	l1 and L2	49	L3
L2	cysteine or methionine	48564	L2
L1	thiobacillus	866	L1

END OF SEARCH HISTORY

## WEST Search History

DATE: Tuesday, June 18, 2002

Set Name Query  
side by side

Hit Count Set Name  
result set

*DB=USOC; PLUR=YES; OP=ADJ*

L9	((423/\$)!.CCLS.) and L8	4	L9
L8	l1 and l2 and extract\$4	449	L8
L7	((423/\$)!.CCLS.) and L6	13	L7
L6	l1 and l2 and dissol\$5	680	L6
L5	l1 and l2 and leach\$4	36	L5
L4	l1 and l2 and (leach\$4 or dissol\$5 or extract\$4)	769	L4
L3	leach\$4 or dissol\$5 or extract\$4	293083	L3
L2	sulfid\$3 or pyrite or marcasite or chalcopyrite or bornite or covelline	35429	L2
L1	amino adj acid or cysteine or methionine or homocysteine	8413	L1

END OF SEARCH HISTORY

L6 ANSWER 12 OF 132 CAPLUS COPYRIGHT 2002 ACS

AN 2000:98845 CAPLUS

DN 132:154724

TI **Leaching of sulfide-containing materials with microorganisms and use of sulfur-containing amino acids in leaching with microorganisms**

IN Rojas-Chapana, Jose; Tributsch, Helmut

PA Hahn-Meitner-Institut Berlin G.m.b.H., Germany

SO PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C22B003-18

CC 54-2 (Extractive Metallurgy)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2000006785	A1	20000210	WO 1999-EP5272	19990723
	W: AU, US, ZA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19836078	A1	20000210	DE 1998-19836078	19980730
	DE 19836078	C2	20020418		
	AU 9951636	A1	20000221	AU 1999-51636	19990723
	AU 745470	B2	20020321		
PRAI	DE 1998-19836078	A	19980730		
	WO 1999-EP5272	W	19990723		
AB	The inventions relates to an effective and environmentally friendly method for <b>leaching of sulfide-contg. materials, esp. sulfide ores (e.g., pyrite, marcasite, chalcopyrite, bornite, covellin) with microorganisms. S-contg. amino acids or their derivs. are added to the aq. leaching liq. The invention also relates to the use of S-contg. amino acids or their derivs. in the leaching of sulfide-contg. materials with microorganisms, esp. the leaching of pyrite.</b>				
ST	<b>leaching sulfide ore microorganism; biol leaching sulfide ore</b>				
IT	<b>Leaching</b>				
	(biol.; of <b>sulfide ores</b> with microorganisms)				
IT	Acidithiobacillus ferrooxidans Microorganism				
	(leaching of <b>sulfide ores</b> with)				
IT	52-90-4, <b>Cysteine</b> , uses 63-68-3, <b>Methionine</b> , uses				
	RL: MOA (Modifier or additive use); USES (Uses)				
	(in leaching of <b>sulfide ores</b> with microorganisms)				
IT	1308-56-1, <b>Chalcopyrite</b> , processes 1308-82-3, <b>Bornite</b>				
	1309-36-0, <b>Pyrite</b> , processes 1317-66-4, <b>Marcasite</b>				
	50642-52-9, <b>Covellin</b>				
	RL: PEP (Physical, engineering or chemical process); PROC (Process)				
	(leaching of <b>sulfide ores</b> with microorganisms)				

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Tuovinen, O; ARCHIEVES OF MICROBIOLOGY 1975, V105(2), P123 CAPLUS

(2) Zimmerley; US 2829964 A 1958 CAPLUS

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